1. In the below elements which of them are values or an expression? e.g.: - values can be integer or string and expressions will be mathematical operators.

\*

'hello'

-

/

6

2. What is the difference between string and variable?

String is a type of data structure in python which can store character data type, but variable is itself a data structure which can store any type of data or in other words datatypes. Variable can be of integer type, floating type, Boolean type, character type etc., but string can only be of character type only.

3. Describe three different data types.

Three different data types are: -

1. Numeric Types: these are the data types which are used to store different types of numeric data like integer type, floating type, complex type.
2. Sequence Types: these are the data types which are used to store different type of data in sequential manner for easy management of data. For ex: - list, tuples, etc.
3. Boolean type: - Boolean data type is used to express Boolean type values like true and false.
4. What is an expression made up of? What do all expressions do?

Expression is a combination of various functions, operators and operands which combined with each to form a program which combinedly give other value which that expression is required to produce. An expression is evaluated as per the precedence of its operations.

There are many types of expressions:

* Constant Expressions.
* Arithmetic Expressions.
* Integral Expressions.
* Floating Expressions.
* Relational Expressions.
* Logical Expressions.
* Bitwise Expressions.
* Combinational Expressions.

1. This assignment statements, like spam = 10. What is the difference between an expression and a statement?

Expression are the combination of operator, operands and function which is used to give the computer instruction to perform a task (very specific mathematical task), but statement on the other hand is the combination of various expression which we use so that we can complete the specific task.

6. After running the following code, what does the variable bacon contain?

bacon = 22

bacon + 1

bacon will be 23.

7. What should the values of the following two terms be?

'spam'+ 'spamspam' = ‘spamspamspam’

'spam' \* 3= ‘spamspamspam’

8. Why is eggs a valid variable name while 100 is invalid?

Eggs is valid variable name because it is a name which can be identified as string to contain any type of variable, but 100 is itself an integer which cannot be used to store value as its in itself is a value stored in memory. In simple word integer cannot store value but a world or sting can store a value as variable

9. What three functions can be used to get the integer, floating-point number, or string version of a value?

The int (), float(), and str() functions will evaluate to the integer, floating-point number, and string versions of the value passed to them.

10. Why does this expression cause an error? How can you fix it?

'I have eaten ' + 99 + ' burritos.'

Because string can only concatenate string (not "int") to string.